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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,706

09/21/2006

Hiroyuki Ikeuchi

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07/08/2009

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EXAMINER

DARJI, PRITESH D

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

07/08/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/593,706	<b>Applicant(s)</b> IKEUCHI ET AL.	
	<b>Examiner</b> PRITESH DARJI	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 18 March 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 6-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yorimichi (JP 2000-63527).

Yorimichi teaches aqueous monomer solution having ethylenic unsaturated monomer and a cross linking agent in the solution. See [0022], [0028]. Then aqueous solution is polymerized to form hydrogel by cross linking. See [0026]. Hydrogel is extruded from a perforated structure having diameters of 0.8mm -28mm, which overlaps instantly claimed diameter. See [0052]. Hydrogel particles are pulverized and dried in order to form water absorbent resin. See [0070]. Hydrogel particles are ground and placed together for agglomerate shape. See [0046]. The surface of the perforated structure is contacted with extrusion structure for cross linking of composition thus making it surface cross linking. See [0057]. Ethylenediamine or diethylenetriamine can be used with monomer composition. See [0030]. The concentration of monomer in the aqueous solution is from 20-60 wt%, which overlaps instantly claimed weight percentage range. See [0038].

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Regarding overlapping ranges the reference range overlaps the claimed ranges and considering the claimed ranges as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari*, 182 USPQ 549; *In re Wertheim* 191 USPQ 90 (CCPA 1976).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frenz (US 2002/0165288).

Frenz teaches water absorbing polymer particles having a surface cross linked structure. See [0029], [0030], [0063]. The water absorbing composition has absorbing agent hydrogel in which hydrogel exhibit an absorption rate (FSR) at least 0.15 g/g/s, water absorption capacity (CRC) 24 g/g and saline flow conductivity of at least  $80 \times 10^{-7} \text{ cm}^3 \cdot \text{s/g}$ . See abstract. It is expected that absorbent would possess same wet porosity as instantly claimed. Particulate diameter is 100 denier. See [0091]. As a liquid permeability enhancing agent, silica is used. See [0094].

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Regarding water absorption capacity a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

Regarding wet porosity, where the claimed and prior art product(s) are identical or substantially identical, or are produced by identical or substantially identical process(es) the burden of proof is on applicant to establish that the prior art product(s) do not necessarily or inherently possess the characteristics of the instantly claimed product(s), see *In re Best*, 195 USPQ 430.

Regarding particulate diameter, it would have obvious to one of ordinary skill in the art at the time of the invention to have adjusted higher or lower diameter because differences in diameter will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such diameter is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)

Regarding claim 1 product by process limitation any difference imparted by product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the examiner has found a substantially similar product as in the applied prior art the burden of proof is shifted to the applicant to establish that their product is patentably distinct not the examiner to show the same process of making, see *In re Brown*, 173 USPQ 685, *In re Fessmann*,

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180 USPQ 324, In re Spada, 15 USPQ2d 1655, In re Fitzgerald, 205 USPQ 594 and MPEP 2113.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frenz in view of Yorimichi (JP 2000-63527).

Frenz doesn't teach presence of agglomerate particles.

Yorimichi teaches grinding of hydrogel particles in the extrusion machine. See [0046]. Stacking up particles on one another would make agglomerate particles.

It would have been obvious for a person with ordinary skills in the art at the time of invention to use Frenz including agglomerate particles in view of Yorimichi because agglomerate particles provide more surface area for absorption.

### ***Double Patenting***

Claims 1-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7,9-16 of copending Application No. 11/526525 in view of Schmidt (US 2005/0031872) because higher wet porosity provides high resistance against deformation thus yielding high permeability. See [0006]. It would have been obvious to the skilled artisan to use higher wet porosity in the product because it provides high permeability.

This is a provisional obviousness-type double patenting rejection.

***Response to Arguments***

Applicant's arguments with regards to double patenting issue filed 3/18/2009 have been fully considered but they are not persuasive.

Applicant argues that obvious type double patenting should be withdrawn since both applications are not commonly owned.

However both applications have a common inventor.

Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PRITESH DARJI whose telephone number is (571)270-5855. The examiner can normally be reached on Monday to Thursday 8:00AM EST to 6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. D./

Examiner, Art Unit 1793

/Steven Bos/

Primary Examiner, Art Unit 1793